FIG. 1

10

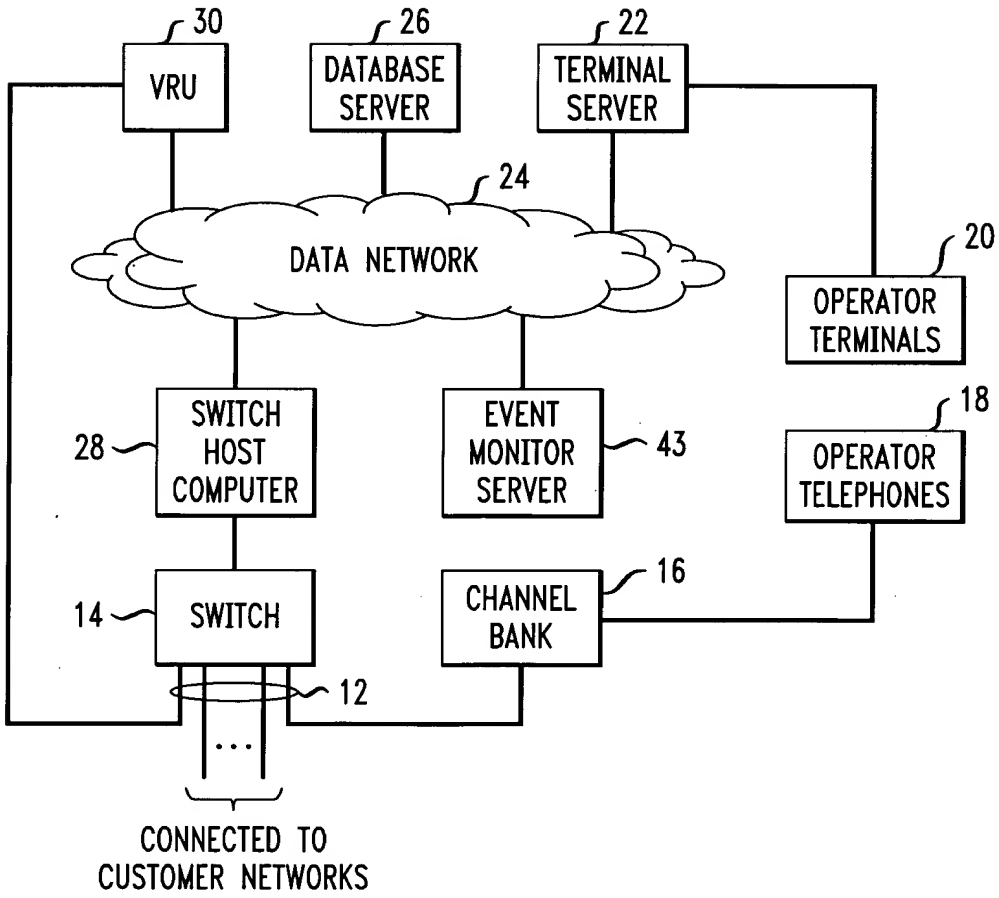

30
VRU
26
DATABASE SERVER
22
TERMINAL SERVER
24
DATA NETWORK
20
OPERATOR TERMINALS
28
SWITCH HOST COMPUTER
EVENT MONITOR SERVER
43
18
OPERATOR TELEPHONES
14
SWITCH
CHANNEL BANK
16
12
CONNECTED TO CUSTOMER NETWORKS

FIG. 2

200

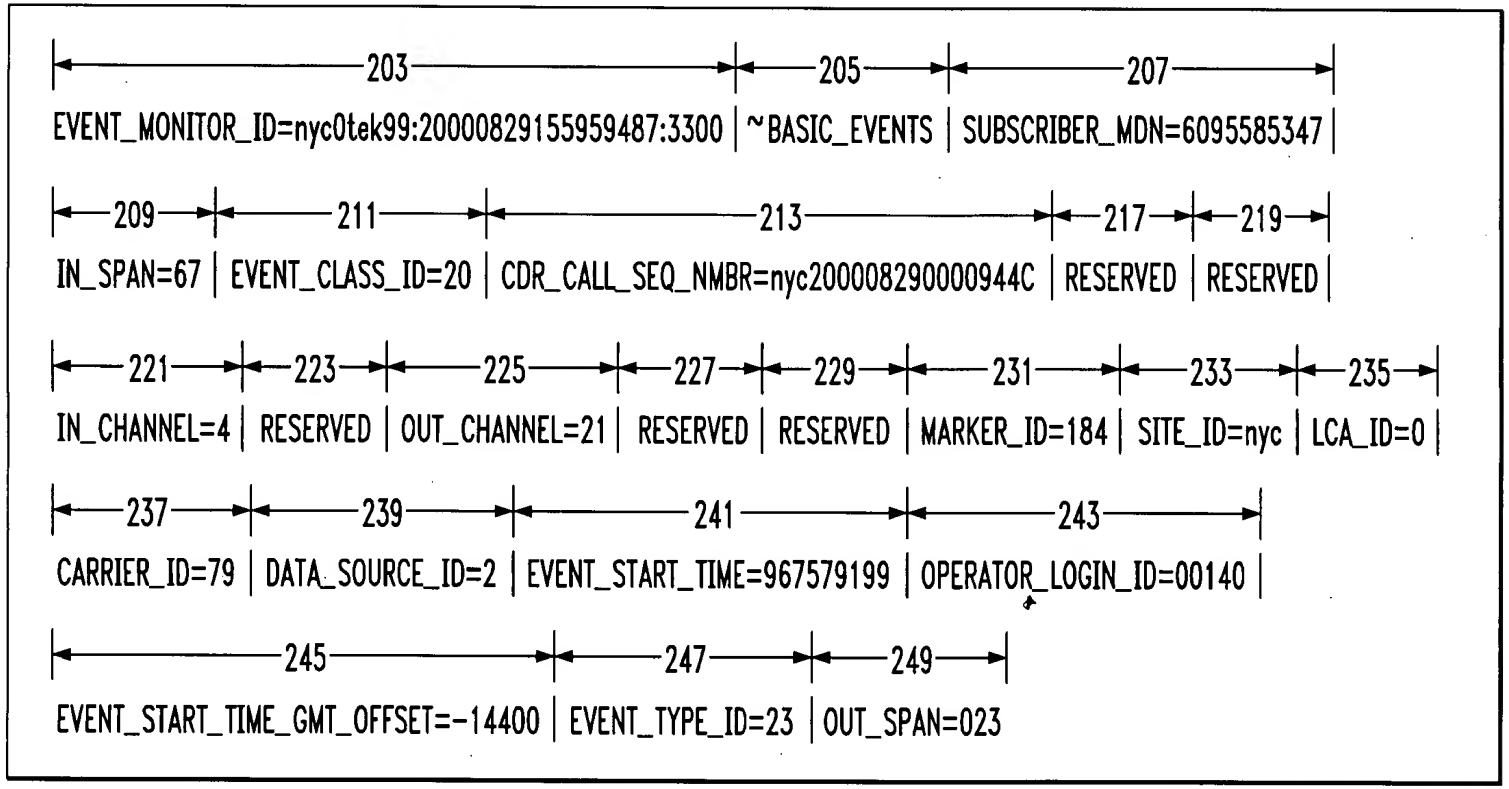

203
205
207
EVENT_MONITOR_ID=nyc0tek99:20000829155959487:3300 | ~BASIC_EVENTS | SUBSCRIBER_MDN=6095585347
209
211
213
217
219
IN_SPAN=67 | EVENT_CLASS_ID=20 | CDR_CALL_SEQ_NMBR=nyc20000829000944C | RESERVED | RESERVED
221
223
225
227
229
231
233
235
IN_CHANNEL=4 | RESERVED | OUT_CHANNEL=21 | RESERVED | RESERVED | MARKER_ID=184 | SITE_ID=nyc | LCA_ID=0
237
239
241
243
CARRIER_ID=79 | DATA_SOURCE_ID=2 | EVENT_START_TIME=967579199 | OPERATOR_LOGIN_ID=00140
245
247
249
EVENT_START_TIME_GMT_OFFSET=-14400 | EVENT_TYPE_ID=23 | OUT_SPAN=023

FIG. 3

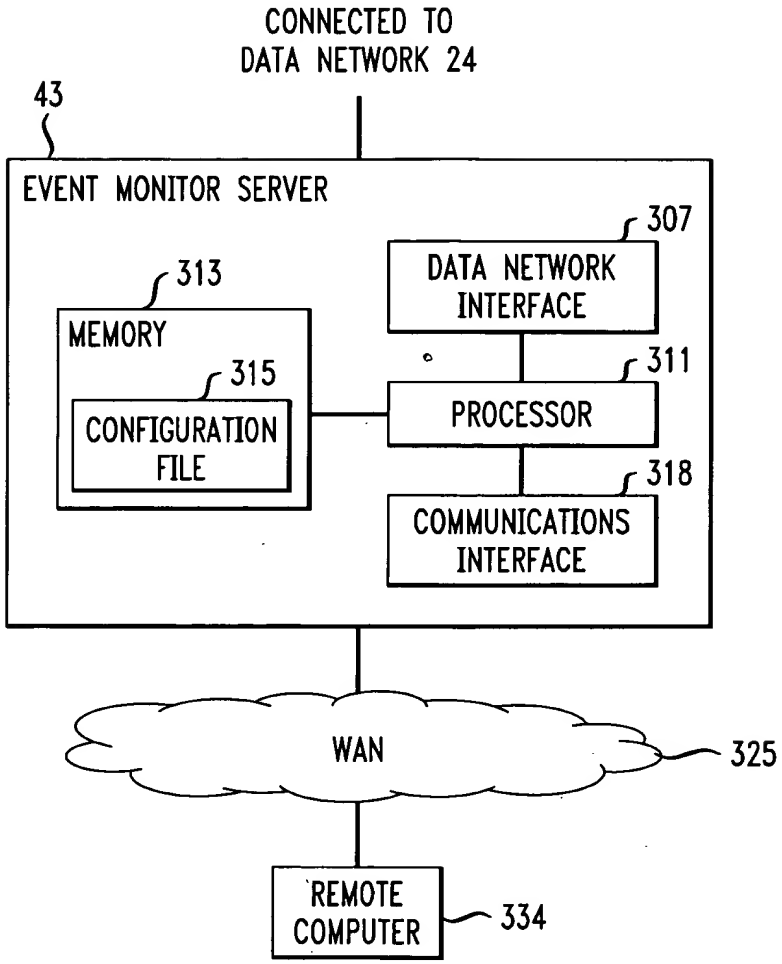

CONNECTED TO
DATA NETWORK 24
43
EVENT MONITOR SERVER
307
DATA NETWORK
INTERFACE
313
MEMORY
315
CONFIGURATION
FILE
311
PROCESSOR
318
COMMUNICATIONS
INTERFACE
WAN
325
REMOTE
COMPUTER
334

FIG. 4

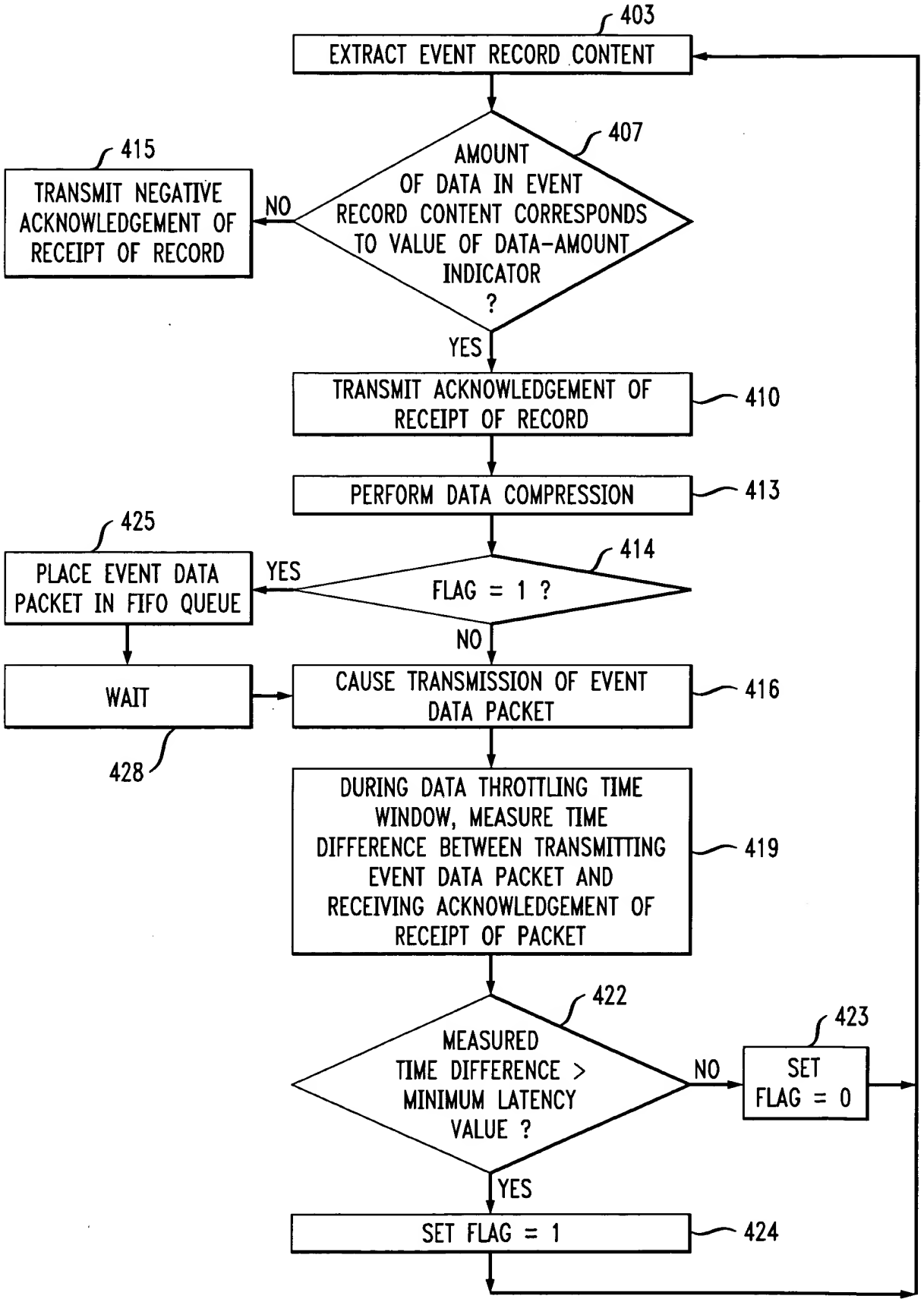

403
EXTRACT EVENT RECORD CONTENT
407
AMOUNT OF DATA IN EVENT RECORD CONTENT CORRESPONDS TO VALUE OF DATA-AMOUNT INDICATOR ?
NO
415
TRANSMIT NEGATIVE ACKNOWLEDGEMENT OF RECEIPT OF RECORD
YES
TRANSMIT ACKNOWLEDGEMENT OF RECEIPT OF RECORD
410
PERFORM DATA COMPRESSION
413
414
FLAG = 1 ?
YES
425
PLACE EVENT DATA PACKET IN FIFO QUEUE
NO
WAIT
428
CAUSE TRANSMISSION OF EVENT DATA PACKET
416
DURING DATA THROTTLING TIME WINDOW, MEASURE TIME DIFFERENCE BETWEEN TRANSMITTING EVENT DATA PACKET AND RECEIVING ACKNOWLEDGEMENT OF RECEIPT OF PACKET
419
422
MEASURED TIME DIFFERENCE > MINIMUM LATENCY VALUE ?
NO
423
SET FLAG = 0
YES
SET FLAG = 1
424

FIG. 5

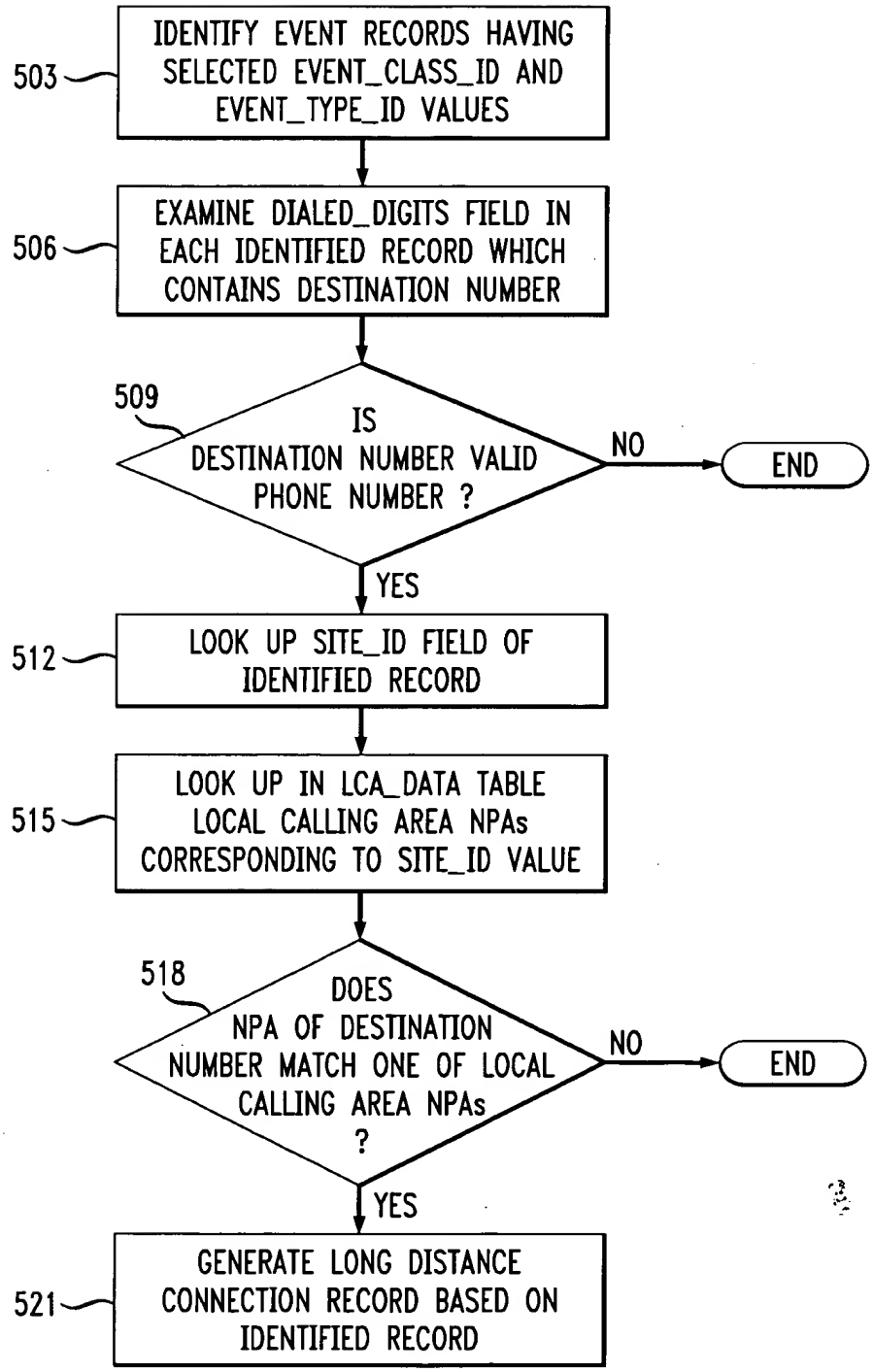

503
IDENTIFY EVENT RECORDS HAVING SELECTED EVENT_CLASS_ID AND EVENT_TYPE_ID VALUES
506
EXAMINE DIALED_DIGITS FIELD IN EACH IDENTIFIED RECORD WHICH CONTAINS DESTINATION NUMBER
509
IS DESTINATION NUMBER VALID PHONE NUMBER ?
NO
END
YES
512
LOOK UP SITE_ID FIELD OF IDENTIFIED RECORD
515
LOOK UP IN LCA_DATA TABLE LOCAL CALLING AREA NPAs CORRESPONDING TO SITE_ID VALUE
518
DOES NPA OF DESTINATION NUMBER MATCH ONE OF LOCAL CALLING AREA NPAs ?
NO
END
YES
521
GENERATE LONG DISTANCE CONNECTION RECORD BASED ON IDENTIFIED RECORD

FIG. 6

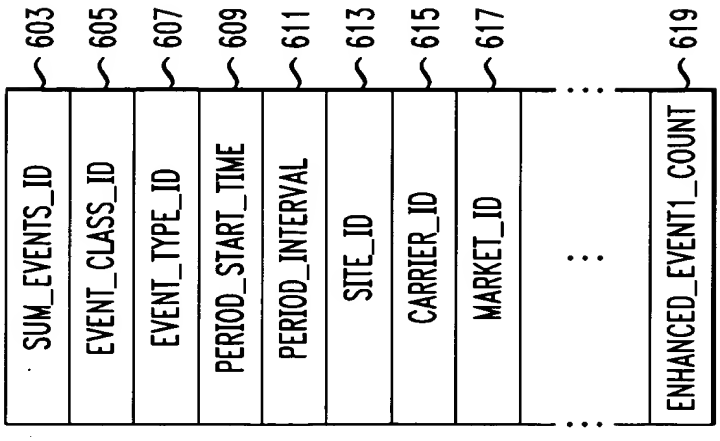


FIG. 7

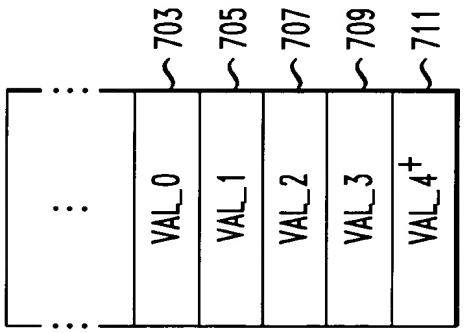


FIG. 8

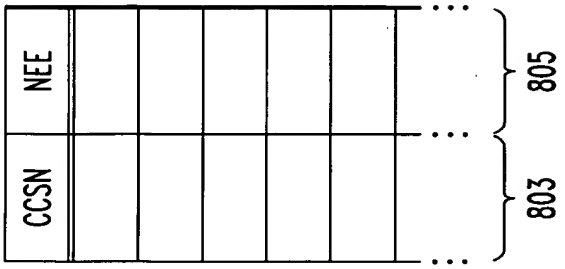
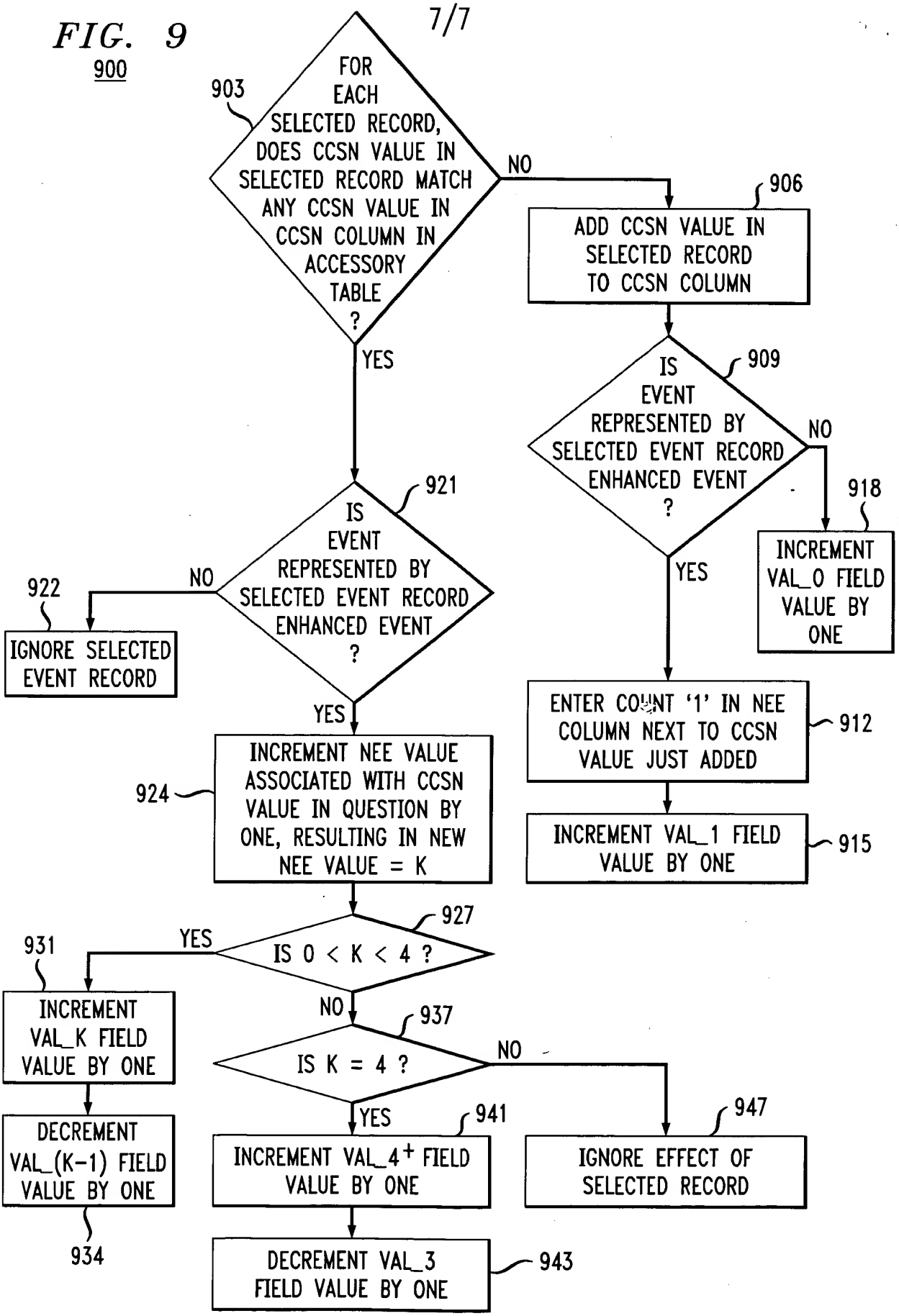


FIG. 9

900


903
FOR EACH SELECTED RECORD, DOES CCSN VALUE IN SELECTED RECORD MATCH ANY CCSN VALUE IN CCSN COLUMN IN ACCESSORY TABLE ?
NO
YES
906
ADD CCSN VALUE IN SELECTED RECORD TO CCSN COLUMN
909
IS EVENT REPRESENTED BY SELECTED EVENT RECORD ENHANCED EVENT ?
NO
YES
918
INCREMENT VAL_0 FIELD VALUE BY ONE
921
IS EVENT REPRESENTED BY SELECTED EVENT RECORD ENHANCED EVENT ?
NO
YES
922
IGNORE SELECTED EVENT RECORD
912
ENTER COUNT '1' IN NEE COLUMN NEXT TO CCSN VALUE JUST ADDED
915
INCREMENT VAL_1 FIELD VALUE BY ONE
924
INCREMENT NEE VALUE ASSOCIATED WITH CCSN VALUE IN QUESTION BY ONE, RESULTING IN NEW NEE VALUE = K
927
IS 0 < K < 4 ?
YES
NO
931
INCREMENT VAL_K FIELD VALUE BY ONE
DECREMENT VAL_(K-1) FIELD VALUE BY ONE
934
937
IS K = 4 ?
NO
YES
941
INCREMENT VAL_4+ FIELD VALUE BY ONE
947
IGNORE EFFECT OF SELECTED RECORD
DECREMENT VAL_3 FIELD VALUE BY ONE
943